Morpheme-specific phonology three ways:
comparing underspecification, indexed constraints, and listing
Brian W. Smith

Patterns of morpheme-specific phonology are often compatible with competing analyses. Consider the case of (de)voicing in Turkish, in which there are three types of morphemes: those that alternate between voiced and voiceless depending on context (1a), those that are always voiceless (1b), and those that are always voiced (1c).

(1)   Voicing alternations in Turkish (Inkelas 1994)

		Nominative	*Accusative*	
a.	*Alternating*	[kana**t**]	[kana**d**-ɨ]	'wing'
b.	*Always voiceless*	[sana**t**]	[sana**t**-ɨ]	'art'
c.	*Always voiced*	[ety**d**]	[ety**d**-y]	'étude'

These data have been analyzed as the product of underspecification, listing, and indexed constraints, and for the data above, these approaches seem equal.

Underspecification: The final stop of (1a) is unspecified for [±voice], and (de)voicing rules target [0voice] segments (Inkelas 1994).

Indexed constraints: A process of voicing applies to (1a), but not to (1b) due to high-ranked morpheme-specific faithfulness constraints (Becker et al. 2011).

Listing: The allomorphs of (1a) are listed, /kanat/~/kanad/, and phonological constraints choose between these listed allomorphs (Kager 2008, Pater et al. 2012).

In this talk, I consider these three approaches in light of other ambiguous cases of morpheme-specific phonology. In English *a* and *an,* an alternating [n] appears between vowels, but only after the indefinite article. In French liaison, an alternating consonant (usually [t] or [z]), appears between vowels, but only after certain words: after *dans* 'in' but not *depuis* 'since' (Tranel 1987: 182). In English suffixation, an alternating schwa appears between consonants, but only before certain suffixes: before *-(a)licious* in *dog-(a)licious* but not *-wise* in *dog-wise.*

I show that these cases are compatible with listing, but are not easily analyzed with indexed constraints or underspecification. To model them, I pursue a framework in which the grammar chooses between listed allomorphs on the basis of language-wide markedness and faithfulness constraints, in addition to constraints on listed allomorphs. Arguments in favor of listing come from data on variation and the rest of English and French phonology. Patterns of variation demonstrate that morphemes not only differ in whether they undergo a phonological process, but also in how often; without listing, this requires a multiplication of abstract segments or indexed constraints. Consideration of the rest of the language's phonology uncovers ranking paradoxes for constraint indexation, which can be resolved through listing.